

Implementing ISO 14001 and OHSAS 18001 Management Plan:

Structure and Requirements

Benefits:

- *Cost Savings/
Increased
Profits*
- *Operational
Improvements*
- *Improved
Compliance*

DNSC's Future

STRUCTURE AND REQUIREMENTS

The basic structure of an environmental management and an occupational health and safety management system, as defined by ISO 14001 and 18001, is shown in Figure 1. Within the structure, there are five primary components (environmental commitment/occupational health and safety policy, planning, implementation and operation, checking and corrective action, and management reviews), which interrelate to produce a framework for managing and continually improving a facility's environmental performance / occupational health and safety policy to achieve DNSC policy and business goals.

- Environmental / Occupational Health and Safety Policy establishes and communicates DNSC's position and commitment as it relates to the installations' en-

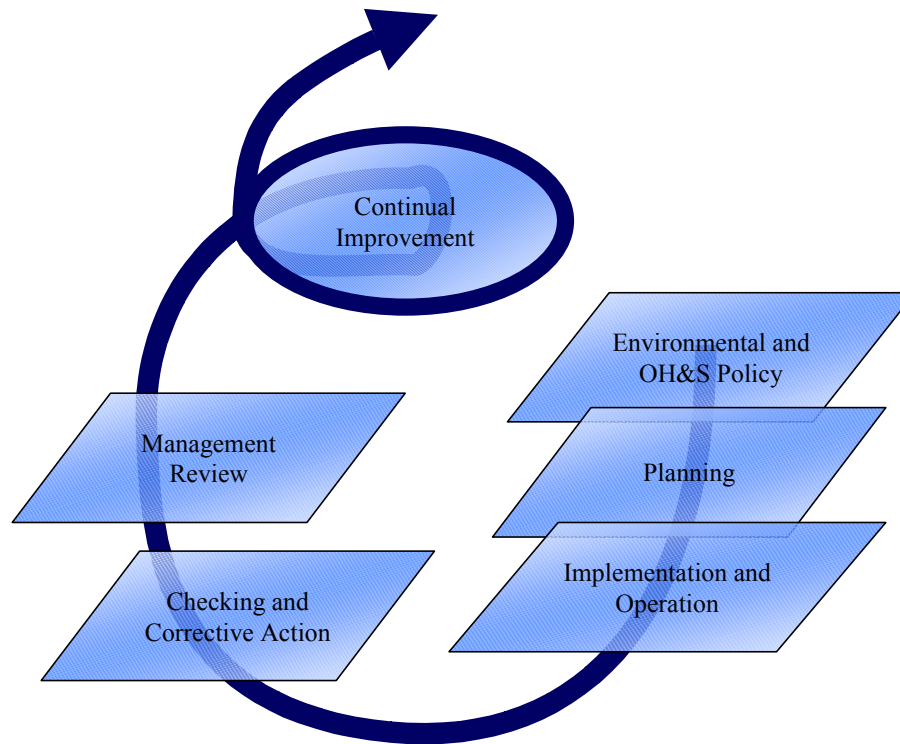
vironmental/ occupational health and safety issues.

- Planning – Identifies the organization's environmental / occupational health and safety issues and requirements, and defines the initiatives and resources needed.
- Implementation and Operation - Describes the procedures, programs and responsibilities.
- Checking and Corrective Action - Regularly monitors and assesses the effectiveness of DNSC management activities.
- Management Review - High-level evaluation of the management system as a whole to determine its overall effectiveness in terms of driving continual improvement and achieving business goals.

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Figure 1
Five Primary Components of
EMS & OHSAS Management System



Within the primary components of the environmental management system are specific elements that define the means for:

- establishing performance standards and goals;
- developing initiatives to achieve these goals;
- building and deploying programs to implement these initiatives;
- conducting routine performance checks to ensure that the goals are being achieved; and
- reviewing progress and performance with senior management.

Compliance with ISO 14001 and OHSAS 18001 includes certification. Accrediting bodies in the United States are the American National Standards Institute (ANSI) and Registrar Accreditation Board (RAB). The Defense National Stockpile will be required to demonstrate that it has a WORKING program of the defined management plan and that all components of the program have been addressed. In order to acquire certification, the Defense National Stockpile will have to undergo a detailed audit (whether self-declared or third party) to verify that the appropriate steps are being taken and that the management plan is continuously operating. The installation to be registered must demonstrate that it has a system in place to achieve specific criteria. Those elements are presented in Table 2.

GTE had 600 self-reported violations through their Environmental Management System from 314 facilities in 21 different states resulting in fines of \$52,000. Without self-reporting the EPA estimated their fines would have exceeded \$2.5 million.

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TABLE 2

**ESOHMS SYSTEM ELEMENTS THAT MUST BE
ACHIEVED FOR ACCREDITATION**

Environmental/occupational health and safety policy	Define your organization's commitment to the environment and occupational health and safety. Policy should include processes for the prevention of pollution and procedures to eliminate or minimize risks to employees and other interested parties. This policy will provide the framework for the management system.
Environmental aspects and planning for hazard identification, risk assessment and risk control	Identify environmental/occupational health and safety attributes of your activities and services. Environmental aspects/occupational health and safety attributes encompass any activity or service the installation engages in that may interact with the environment or human health and welfare. Effects can be either adverse or beneficial.
Legal and other requirements	Identify and ensure access to relevant laws and regulations.
Objectives and targets	Establish and maintain environmental goals for the organization that are consistent with company policy.
Environmental/occupational health and safety management program	Plan actions to achieve objectives and targets, including responsibility and time frame.
Structure and responsibility	Establish management responsibilities and authority to ensure the environmental and occupational safety and health management plans are implemented and maintained. Ensure resources are available including special skills, and technical and financial support.
Training, awareness and competence	Provide training to employees and interested parties so that they are able to carry out their assigned responsibilities.
Consultation and communication	Establish procedures for internal and external communications regarding environmental/occupational health and safety issues. Employees shall be involved and consultation arrangements shall be documented and interested parties informed about the occupational health and safety policy.

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TABLE 2 (CONTINUED)

**ESOHMS SYSTEM ELEMENTS THAT MUST BE
ACHIEVED FOR ACCREDITATION**

Environmental management/ occupational health and safety policy documentation	Establish and maintain information that describes interaction of environmental and occupational health and safety elements.
Document and data control	Ensure effective procedures for controlling and accessing system documents and data.
Operational control	Identify, plan, and manage operation and activities in line with DNSC policy objectives and targets.
Emergency preparedness and response	Identify potential emergencies and develop procedures for preventing and mitigating them.
Performance measurement and monitoring	Both qualitative and quantitative measurements of appropriate procedures to assure objectives are met. Must ensure proactive measures of performance are employed for the occupational safety and health program.
Nonconformance and corrective and preventive action	Investigate and correct problems and preventing recurrences.
Records	Keep adequate records of program performance, documenting compliance, training, audits, and corrective actions.
Environmental management/ occupational health and safety policy audit	Periodically verify that the system is operation as intended and provide information to key management personnel.

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Ray Anderson

Ray Anderson has been called the “greenest chief executive in America.” He began reducing his company’s waste and conserving energy. At the same time he found that his profits increased. He also spread the word to other companies and consumers worldwide. “The new course we’re on... is to pioneer the next Industrial Revolution: one that is kinder and gentler to the earth.” He strives to move his company to complete sustainability, making product utilizing solar and wind energy, so future generations will still have new materials and energy resources.

BENEFITS

Environmental and occupational health and safety performance is often viewed as a single topic. However, the performance of an organization is the result of many different management choices. When we go back to the environmental and occupational health and safety policy, it states that DNSC will:

- “Continually improve its environmental performance through training and integrating environmental / occupational health and safety factors into operating procedures.”
- “Assess its environmental/ occupational health and safety performance on a regular

basis, and at all levels within the organization.”

- “Foster dialogue with employees and the public, and respond to their concerns about the potential impacts of DNSC operations.”
- “Promote environmental stewardship through the prevention of pollution.”
- “Provide adequate resources to meet environmental/ occupational health and safety.”

Since this is the commitment we have made, and ISO 14001 and OHSAS 18001 contain elements that address every one of these components, it makes good sense to implement a

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management system based on these principles. There are also other benefits that are likely to accrue upon implementation of these management systems. The following information is based on the experiences of other companies and organizations that have implemented ISO14001 and OHSAS 18001 based management systems:

Cost Savings/Increased Profit

1. Reduction in waste, by-products and energy use often results from examining and scrutinizing procedures and processes inherent in ISO 14001 and OHSAS 18001 based management systems.
2. More efficient means for achieving environmental/occupational health and safety goals are often identified during the process of establishing these management systems. By focusing on goals, and determining the processes needed to meet those goals, many existing procedures and processes can be streamlined or eliminated.
3. Means for increasing efficiency of operations other than the environmental and occupational health and safety functions can be identified, as a result of the need to analyze all operations that have impacts on the environment and occupational health and safety.
4. More effective compliance with applicable environmental laws and regulation can result in a reduction in fines paid for violations.

5. The improved compliance and more effective management can result in reducing incidences that require expenditure of clean-up costs.
6. In many locations, regulatory agencies give precedence to facilities/organizations with an ISO based management program during permit applications.

Operational Improvements

1. An ISO based management system provides clear designation of roles and responsibilities that ensures collaborative efforts towards an agreed upon set of goals and targets, something which does not typically happen in the absence of an ISO based management system.
2. An ISO based management system fosters better communication between the environmental / occupational health and safety staff and the operational staff whose jobs impact these functions. This communication, which may have been limited to implementation of these systems, can result in identification of ways to improve operations and promote teambuilding.
3. An ISO based management system increases awareness of all staff regarding environmental and occupational health and safety issues, and promotes consideration of negative impacts earlier in the process or facility develop-

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ment. This, in turn, allows for these issues to be addressed in a more effective and efficient manner than if they are addressed after process/facility implementation is complete.

4. An ISO based management system requires explicit senior management commitment and periodic review of performance results in consideration of pertinent issues at the top management levels. This allows environmental and health and safety functions to be factored into strategic business decision, which results in more realistic and effective management strategies.

EPA Audit Policy

- Effective January 22, 1996
- When a compliance management system ensures that regulatory violations are self discovered, and corrective action is taken:
 - Gravity-based penalties will not be imposed
 - Criminal sanctions will not be recommended (some conditions and limitations apply)
- As of March 1998, 760 facilities have given voluntary disclosure; 433 resulted in greatly reduced or waived penalties

5. The commitment to continual improvement inherent in an ISO based management system reinforces other efforts devoted to improving quality on a continuous basis.

Improved Compliance

An ISO based management system includes elements which will result in more effective compliance with applicable environmental and safety and health regulations. Some ways in which this may occur include the following:

- a) By explicitly requiring the assembly and maintenance of a list of legal and regulatory requirements, an ISO based management system ensures that an organization is fully cognizant of applicable regulatory requirements. By avoiding the situation in which an organization is "blindsided" by becoming aware of a regulatory requirement after events which might trigger that requirement have already occurred, this organization can avoid potential violations, fines and operational upheaval.
- b) An ISO based management system requires designation of responsibilities and development of procedures that address all applicable regulatory requirements. The identification of these responsibilities and development of procedures can result in more streamlined ways for

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meeting the regulatory requirements, and also reduces the risk that certain requirements will be left unaddressed.

- c) There are a number of jurisdictions in which the presence of an ISO based management system is looked upon favorably by regulatory agencies, in terms of mitigating potential fines associated with violations of regulatory requirements, or expediting approval of permits.

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